02.0479
City Cross EXHIBIT NO. 5 (ER)
McDermott
9-13-02 REPORTER CAC

Is There a Rational Path to Implementing Competition?

The pell-mell rush to restructure will cause many more problems than it solves. Instead, let's realign the incentives in this industry through performance-based regulation and competitive bidding, create the RTGs and work with FERC to establish unbundled open access transmission tariffs that support the goal of competition.

Karl A. McDermott

Karl McDermott *has served on the Illinois Commerce Commission since 1992. Commissioner McDermott is the chairman of the Commission's Integrated Resource Planning and Telecommunications Policy Committees, and also serves on the Electric, Natural Gas, and Transportation Policy Committees. Prior to joining the ICC, Commissioner McDermott was the president and chairman of the board of the Center for Regulatory Studies. Commissioner McDermott holds a Ph.D. in economics from the University of Illinois.*

Charles Darwin employed the phrase "one long argument" to describe his book, "The Origin of Species," concerning the evolution of life. In this article I would like to make one long argument concerning the evolution and nature of competition in the electricity industry. It is in effect one long argument against the headlong rush for dramatic change in the industry and a plea to address our current problems before considering the question of what institutional form a competitive electricity industry should adopt. I am not arguing against competition *per se*, but rather, I am arguing that direct access and poolco policies do not provide an answer to the problems we face today. They may provide answers to the competitive structure questions but they do not help us navigate the transition.

In place of this pell-mell approach, I will present what I believe is a more rational policy path to implementing competitive forces in the electricity marketplace. In presenting my beliefs I must, to one degree or another, address current controversies. This, in turn, requires that I deal to some extent with the history of energy policy that has given rise to our present condition. While I hope to maintain a degree of objectivity, my view of history is obviously colored by the evolution of my own experience and observations over the last 20 years.

I. What is the Problem?

The current debate over opening up the transmission grid, direct access, poolcos and the structure of the utility industry itself must be aimed at solving a particular problem. From my observation, the problem has been defined as either high prices in general, or the relative prices charged to a particular customer as compared to some "market" rate. It is claimed that regulation has in some sense failed to keep prices low and that the introduction of competition will redress this problem.

While it is inarguable that some customers and certain regions of the country face high prices, it is not true that the problem is ubiquitous. As a rule of thumb I would suggest that the problem exists for customers of approximately 20 percent of the utilities out of approximately 200 utilities serving customers nationwide—or roughly 40 utilities. Conversely, this implies that customers of four out of every five utilities are not significantly affected. These numbers do not strike me as a condemnation of regulation in general. A closer look at the data, I believe, reveals that certain utilities serving large metropolitan areas either undertook large nuclear construction programs, or operate in states where regulations too zealously encouraged the acquisition of QF and other power sources, thus contributing to the high-cost conditions.

The question naturally arises then as to whether a restructuring of the entire industry at this time is necessary to solve the high-cost problems of a minority of electric utilities. Would it not be more productive to focus our discussions on how to get costs down for high-cost suppliers and keep costs down for low-cost suppliers? And, if this is a correct characterization of the issue, what regulatory reforms are necessary to achieve this end, and what role will markets play in this reformed regulation?

While some customers and certain regions of the country face high prices, customers of four out of every five utilities are not significantly affected.

II. A Brief Digression on History

To place this problem in context requires that we reexamine the history of our energy policy since enactment of the Public Utility Regulatory Policies Act in 1978. Regardless of the rationale for that law, the incentive to attract alternative suppliers to the energy market and the tapping of existing alternative sources of steam created an opportunity for utilities to incorporate these alternatives into their systems through the 49-percent ownership rules. Utilities could have viewed cogeneration, QFs and small power production projects as the next low-cost supply source. By becoming joint owners, the operation, maintenance and reliability issues could have become the utilities' responsibility, one which many industrials would have readily agreed to.

The utility industry reaction, however, was in general not to look at these sources of supply as an opportunity but rather as the enemy. The corporate culture of the monopoly utility looked upon these new sources as interlopers. As a result, we found ourselves with a dual-supplier market and what could be characterized as a highly antagonistic environment.

By the mid-1980s FERC sought to address this problem by issuing proposed rulemakings on avoided cost, independent power production and competitive bidding. In effect, as a halfway house on the road to competition, FERC offered the option for utilities to become portfolio managers. Under these proposed rules, utilities would have owned some supply sources and contracted for the remaining supplies. The utility industry in the main rejected this approach, as well as the idea that non-utilities could enter this market and supply reliable, efficient power.

States continued to use traditional rate base, rate-of-return regulation and were slow to respond to the implementation of competitive bidding. Traditional regulation created the buy-vs.-build debate where the incentives

were structured so as to avoid participating in the bulk power market. Rather than focusing on how to increase the margins between the price and the costs of service, regulation continued to focus on the return on utility-owned ratebase. FERC's concern with creating a vibrant bulk power market where competitive forces could come into play was marginalized by the states' reluctance to embrace competitive forces. The end result of this process of rejecting change at the margin was the passage of the Energy Policy Act in 1992. As a result, a more open competitive market was to be created and transmission access was now going to be the law of the land. With those changes, control of the utility industry's destiny seemed to slip from its hands.[1]

III. Order on the Border of Chaos

Today we find ourselves in a world which I would describe as order on the border of chaos. We have an industry which is founded largely on a cooperative/coordinated structure that springs from its fundamental network characteristics, but is now being pushed toward a competitive/decentralized form of organization. The impetus for this change seems to me to be fundamentally flawed. It is a reaction to the relatively short-run disequilibrium conditions of the marketplace and not based on long-run fundamental changes in the nature of the industry. It is a legacy produced by the 1980s construction programs and the unraveling of the regulatory compact in the changing economic climate of the 1970s and '80s.

In certain regions of the country, and for certain utilities, an imbalance between supply and demand was created. Excess capacity, mismatches between capacity types and utility load factor profiles, as well as the technological innovations in combustion turbines and low natural gas prices—all have combined to create a disequilibrium in the marketplace. Excess capacity creates an incentive to sell electricity on the bulk power markets at a discount from the embedded costs paid by native load customers. Low-cost natural gas-fired units create a further disparity between regulated and market prices. These disparities between utility embedded cost prices and market prices, on a regional basis, have created a demand for transmission services never before seen.

Once excess capacity is gone and all utilities are using the same technology to meet marginal demands, price differentials and incentives to wheel will vanish.

Wholesale customers and large retail customers, recognizing the arbitrage opportunity presented by regional price differences, have pressed for the freedom to shop around for new supply sources. The trouble with this scenario is that the incentive to leave current suppliers and seek retail wheeling or new wholesale deals is not being driven by long-run market fundamentals, but by short-run market disequilibrium conditions. Very few long-term deals are being offered at deep discounts. Once the excess capacity is absorbed by growth and retirements and every utility is using the same combustion turbine technology to meet marginal demands, the price differentials and incentives to wheel will vanish, along with much of the value currently being placed on transmission capacity.

Under the current form of regulation, and even more so under performance-based regulation, utilities can respond to this disequilibrium in the market and reduce the pressure for retail wheeling by taking advantage of the opportunity to offer innovative rate plans such as real-time pricing based on market (and not system lambda) prices for energy, plus a fixed fee. In addition, interruptible contracts, in which replacement power is provided through what amount to buy-sell agreements, will also enable utilities to employ markets more effectively.[2] But the real question facing regulators should be: What regulatory structure will most effectively focus utilities' incentives on cost-reduction activities *over the long term*?

IV. The Restructuring Debate

The major alternatives being debated in policy forums have focused primarily on dismantling the collective services structures that aggregate load, and advocating in their place decentralized direct access by customers. This approach certainly is consistent with the competitive market model of economic theory. It *may* be consistent with the need to create a viable long-term solution to providing least-cost electricity services. However, it *may not* provide the most economical option for dealing with our current problem.

Moreover, the Federal Energy Regulatory Commission's desire that a more competitive bulk power market develop implicitly recognizes that economies of scale associated with bulk purchases could support large-scale purchasers/aggregators of services for a collective set of customers.[3]

But very little attention has been paid to the transaction costs aspects of decentralized markets and the new allocations of risk/costs brought about by these new market forms. While price risks may be hedgeable, the complexity of putting together the series of deals to ensure that quantity risks/interruptions are avoided may become cost prohibitive. What regulators and legislators must ask themselves is: What set of regulatory and institutional changes can bring the power of market forces to bear on cost control without sacrificing the economies of scale inherent in network provision of collective services?

V. A Common Sense Solution

In order to make market forces the focal point of electricity market incentives, FERC has proposed unbundled, comparable, open-access transmission tariffs, stranded investment recovery and—potentially—the restructuring of utilities via corporate unbundling (e.g., genco, disco, and transco structures). The question facing commentators on the FERC open access NOPR is whether this makes sense and whether or not state regulation can maintain its effectiveness under these conditions. My own view on this is that timing is everything and that from a common sense point of view we are moving just a bit too fast.

Very little attention has been paid to the transaction costs aspects of decentralized markets and the new allocations of risk and costs of these new market forms.

The fundamental way of achieving a competitive bulk power market that will deliver efficient services to *all* customers—and as a state regulator I must place the emphasis on the word "all"—is first to revise the incentive structure of state regulation. Many states are in the process of doing just that, through both performance-based regulation (PBR) and competitive bidding rules. These reforms, in conjunction with unbundled, comparable, open-access transmission tariffs, will go a long way toward creating an efficient electricity supply market. Reforms at the state level will refocus utilities' attention toward improving their own supply efficiency in order to maximize their margins. This new incentive structure implies that utilities will seek the lowest-cost supplies to meet their customers' needs. They will have incentives to shut down inefficient existing units and buy power when doing so is cheaper than producing power. Where it is cost-effective to adopt demand-side management programs rather than build or buy, the utility will respond to the incentive to reduce the demand.

Under PBR, corporate unbundling may occur in a very natural fashion over time and possibly with significantly less stranded costs, as compared with the outcome under administrative fiat. Under PBR, utilities will have the incentive to develop PUHCA-exempt wholesale generators, affiliated power producers and other subsidiaries to compete in a robust bulk power market. The disco side of the utility will have incentives to cooperate with potential cogenerators or purchase power from IPPs and QFs where they are the low-cost providers. The discos that exist will most likely still retain some generating

capabilities in order to exercise the necessary control over their systems. Maintaining discos rather than moving to direct access makes sense if the power to command better deals exists for aggregated loads. It makes little sense to dismantle the existing aggregator and move to direct access if the response under direct access is to seek out brokers and marketers to obtain economies in purchasing power.

In a robust bulk power market that is made up in part of many non-utility generators and marketers, it will be natural to seek the development of regional transmission groups (RTGs), which will provide a means of maintaining a reliable transmission grid where every player operates under a common set of rules. Transmission tariffs for the RTG will more effectively take into account loop flows and other issues that have a tendency to balkanize an otherwise effective transmission system.

If retail wheeling and direct access can be avoided today, stranded cost issues will work themselves out over time. Under the revised incentives of price cap forms of PBR, cost savings and profits generated by utility actions can be used to cover the costs of accelerated depreciation, write-downs or write-offs of high-cost capacity. Over the next five years, many utilities could dramatically restructure their costs and capacity profiles in order to be more competitive.

Stranded costs are simply a matter of time and timing. Where the regulatory incentive structure is changed, then whatever is in the utility's best interest will dictate the cost-restructuring process. And it is, after all, the need to create incentives to lower costs and keep them low that should be the goal of regulatory change.

It is precisely this reason, the goal of lowering costs and keeping prices as low as possible for *all* customers, that compels me to reject the necessity of a "direct access or poolco now" approach as an appropriate policy instrument at this time. Under direct access, bilateral contracts will allow those customers with buying power (i.e., high load factors and large loads) to obtain price discounts while smaller-load customers with poor load factors continue to pay higher prices. Direct access represents a mechanism for market disaggregation when in fact the strength of the disco lies in its ability to aggregate loads to serve them collectively on a more efficient basis. The introduction of marketers or other aggregators in this market structure may only result in "mini-discos" that may lose the advantages that already exist in the form of the existing disco.

Maintaining discos rather than moving to direct access makes sense if the power to command better deals exists for aggregated loads.

While a direct access market may mimic the laissez faire ideal of economic theory, it does not come without a price. In effect it allows an unnatural market segmentation based on opportunistic behavior as opposed to true competition. The lost economies of scale and scope as well as the transaction costs and costs associated with new risk allocations may offset the perceived gains. While large customers may indeed benefit from direct access, the existence of externalities associated with the network and collective service aspects of electricity provision may imply that society overall will not benefit from direct access. Competition may naturally result in efficient customer segmentation but that issue can be addressed once the high cost problems have been solved.

Assuming that a poolco structure is accompanied by a genco/disco organization for the existing utilities, then the "former" high-cost disco could benefit from having access to the poolco's potentially lower market clearing price. The high-cost genco, however, will be forced to deal with the question of how to maintain its profitability at these lower prices, unless regulators force customers to bear the stranded costs; then the best that they may hope to attain under a poolco is the gain in fuel efficiency embedded in the market clearing price.

The low-cost gencos will earn an inframarginal rent (or profit) in the short run as they sell power at poolco prices above their costs of production. The "former" low-cost disco customers, however will more than likely face a higher poolco price than the former regulated price. In this case the "former" low-cost disco customers are paying the price in order to ease the burden of the high-cost disco customers. Without compensation for the higher rates, it is difficult to see how any state regulator would sanction this cost shifting. Such policies do not comport with the Pareto optimality conditions that economists advocate to guide social policy.

The introduction of contracts for differences (CFDs) simply results in a hybrid direct access/poolco world. It will allow those customers with buying power to negotiate low prices and less risk bearing while less fortunate customers will get higher prices and more risks in the CFDs they negotiate. For the latter, these prices may not be any better than the former regulated prices.

The argument can be made that a direct access or poolco world would enhance the efficiency of utilities in the long run (and here I will avoid attacking the issue of the incentives to construct new plants under these schemes) because of the pricing incentives associated with competitive markets; however, this argument neglects the fundamental reason that a utility exists in the first place. That reason is to serve the public which has granted it a franchise. There is no inherent right or entitlement to cost recovery created by that grant. Rather, its existence is conditioned by the quid pro quo that the public receive efficient, adequate and reliable service. If the poolco or direct access approach results in higher rates for current low-cost utility customers or segments of a utility's customers, while generating lower prices for some customers and profits for some utilities, the distributional consequences do not necessarily add up to a benefit for the public in general. A poolco "now" policy will simply shift fixed costs between customers "now" and will not solve our current high cost problem.

In a multi-state poolco approach, why would a state commission endorse the sale of its low-cost capacity in order to benefit other states' customers without compensation?

In a multi-state poolco approach the question arises as to why a state commission would ever endorse the sale of its low-cost capacity in order to benefit other states' customers without compensation. This is especially true if the low-cost utilities' rates now rise to a poolco market clearing price that is greater than the former regulated price. Why should customers of the low-cost utilities be forced to pay for the high fixed costs of other states' utilities? Why is it that we are not focusing on the methods to bring down high-cost utilities' costs while preserving the low-cost utilities' rates?

We have the opportunity to help each other if only the incentives could be made right. States with low-cost excess capacity could sell this capacity to high-cost utilities via bulk market transactions. The problem is that traditional regulation would treat these lower costs as a pass-through in the fuel adjustment charge and the high-cost utility could not gain any advantage or begin the process of moving towards lower rates over time. Under PBR forms of regulation these types of transactions are not only possible, they are in fact encouraged. It is time to start realigning our incentives in order to capture existing efficiencies in the system and move us toward a solution to the high cost problem.

The stranded costs created by restructuring amount to little more than an excuse to shift the cost burden to certain classes of customers. The same result could be achieved under traditional regulation by accelerating the depreciation of high-cost plants and selecting cost allocation methods that result in captive customers paying the majority of the costs. Most, if not all, state commissions would reject this option, so why does changing the name of this ac-

tion to restructuring now give such a policy legitimacy? If the customers seeking to change the system of regulation—ostensibly because there are net societal benefits accompanying the change—are not willing to pay for the costs of the change, this calls into question whether net benefits will actually be generated. This raises the specter that restructuring, as it is proposed for example in California, is in fact characterized by free rider effects and illusory net benefits. Only select large customers benefit because they have managed for other customers to foot the bill.

What regulators must focus on to avoid such a result is adoption of policies that focus on the real question: how to get high-cost utilities' costs down and how to keep low-cost utilities' costs low. We should not let our focus be diverted to the redistribution of costs among customer classes.

VI. Conclusions

Common sense seems to be telling us that if we want to get the industry structure question right then we must start by making the incentives that utilities operate under consistent with the goals of regulation. This can be achieved by adopting performance-based regulation that mimics the incentives created by competitive markets. When this is combined with the creation of a proper set of institutions, such as unbundled open access transmission tariffs, over time this combination can lead to an effective and efficient restructuring of the industry to meet the public's need.

This restructured world may involve the creation of gencos and discos, and even direct access at some point in time if it is efficient. But it would be achieved in a rational fashion, absent the dramatic redistribution of costs that the "restructure now" camp would produce.

One of the greatest faults of public policymaking in a democratic society is the level of impatience that accompanies the need to solve problems. Since the passage

of PURPA in 1978 we have run through a list of policy solutions to our energy problems that, in retrospect, is phenomenal. Avoided-cost pricing, least-cost planning, demand-side management, environmental adders, integrated resource planning, green pricing, buy-vs.-build debates, incentive programs that raise rates, decoupling and recoupling—I could go on. I think if we carefully studied the issue, we could find that we gave each policy six months to produce a solution before the debate shifted to the next policy.

This does not seem to me to be a common sense approach to our problems. Let's realign the incentives in this industry in a manner consistent with profit-maximizing, competitive market incentives. States can do this through performance-based regulation and competitive bidding. Let's create the institutions such as RTGs that are necessary to preserve the benefits of a cooperative network and work with FERC to create a set of unbundled open access transmission tariffs that support the goal of competition to bring costs and rates down over time. Add to this the innovative rate designs that will evolve to deal with the incentives for customers to leave their systems and then stay the course. Let time do the job and hold our impatience at bay and maybe, just maybe, we will succeed in achieving our goals of ensuring that low-cost, reliable electricity service will be available to the public. ■

Endnotes:

1. Obviously a number of states have successfully implemented competitive bidding procedures, but not in sufficient numbers or timeliness to affect the evolution of this process.

2. This works to improve efficiency when the avoided cost of the utility's system is higher than the market price, and targeting the deal to specific customers enables them to profitably continue operations.

3. In many of the discussions involving poolcos and bilateral contracts, brokers and wholesale middlemen are described as simply duplicating the services already provided by distribution companies. These brokers and wholesalers are not necessarily superior as load aggregators, however, and I do not believe we should sacrifice the services provided by discos.